

## **A ROTARY KILN WITH A HOLLOW BRICK INSULATING LINING**

### **Abstract of the Disclosure**

5

A rotary kiln for pyro-processing a variety of materials, such as cement, lime, lime sludge, clay, shale, refractory grains, bauxite, garbage and minerals, that includes a continuously-rotated, cylindrical steel shell, having a feed end for receiving material, a processing zone through which high temperature gases circulate and where the material is processed, and a discharge end where the material leaves the kiln. In addition, the feed end of the kiln being more elevated than the discharge end so as to force material flow during kiln rotation. The shell includes an inner cylindrical surface and defines a longitudinal axis extending from the feed end to the discharge end. In addition, the inner cylindrical surface includes a contiguous insulating refractory lining comprised of hollow bricks, and a work refractory lining concentric with and over the insulating lining. The linings are disposed annularly about the open processing zone. The insulating lining, comprised of hollow bricks, is intended to reduce heat flow between the work lining and the kiln shell, thus reducing kiln shell temperature.

10

15